

Guidelines for CMS-FNAL RA Supervisors and Mentors

The postdoc years are very important for a young physicist's formation as a good and well-rounded scientist. These are also, typically, his most creative and productive years. It is the responsibility of our FNAL group in CMS to offer the opportunities and guidance for the Research Associate (RA) to have a rich and fulfilling experience while contributing effectively to the projects for which Fermilab has taken responsibility.

Every Fermilab employee, including an RA, has a supervisor who has many responsibilities. One of them is, for example, to do the performance evaluations. Unfortunately, the role and responsibilities of a Fermilab supervisor are not described in any document, although it may be inferred from material available for different training courses.

The RA may work on one or several projects under the guidance of one or more scientists, engineers, computer professionals or whoever has the knowledge, skill, and experience to introduce the RA to a topic, train her, and work side-by-side everyday with her on the project. The RA supervisor may or may not be one of these scientists working directly with him on a project.

The RA supervisor's responsibilities include "mentoring". The mentoring aspect of the supervisory activity becomes particularly relevant because the RA is a young physicist who is going through his formation years as a researcher. Diversity in experience, opportunities to develop leadership and management skills, the ability to multitask and communicate effectively in a collaborative environment, the crafting of a relevant and independent research program to take to the next stage are all important aspects of the RA development into a complete physicist with good chances to give the next step as a scientist or a university faculty. In mentoring postdocs, supervisors will be responsible for assisting the RA in creating a plan that includes their physics and technical activities, as well as for offering RAs advice, guidance, support, empathy as they face choices and make decisions through their postdoc years.

At Fermilab, employees have the option to choose a mentor, that is a person who could provide the kind of advice and support described above but outside of the line management. Accordingly, CMS RAs may decide to have a mentor who is a different person than the supervisor. Although the supervisor is still the sole responsible person for the RA supervision defined in the comprehensive way explained above, the RAMC expects the supervisor and the mentor to discuss and agree with each other on their respective roles and to work together on items such as the RA plan preparation and regular reporting to the committee. If the mentor and supervisor have disagreements that affect the RA in some way, the RAMC will intervene to help resolve the underlying issues.

There are many effective ways to supervise a postdoc and by no means this committee intends to micro-manage the details of the process. We believe, however, that the guidelines below will help supervisors to remember the many aspects of the process that could slip away our minds while we walk through our busy lives and difficult schedules.

Supervisor and Mentor responsibilities:

Once the RA accepts the Fermilab offer, she will meet with the CMS Center management and the Mentoring Committee (RAMC) chair to receive information about the process of selecting projects, a supervisor and a mentor (the same or a different person), and writing a plan to be endorsed by the RAMC and approved by the CMS Center Head. The RA will also receive a short document with a list of hardware, software, and computing projects the FNAL group is involved with as well as a list of physics topics with Fermilab participation. Names of scientists involved in these projects/topics will also be provided. The CMS Center Head will compose the list with contributions from the Fermilab body of scientists.

The RA is expected to talk to FNAL scientists and eventually come up with a plan that is in line with FNAL responsibilities within CMS, and with a well-balanced mix of technical and physics projects. During the process of selecting the topic, a candidate supervisor, a different candidate mentor if desired, the RA will keep the CMS Center leadership and the RAMC chair informed of her progress. After a period of about a month, the RA will submit by email a proposal for a plan to the CMS Center Head and the RAMC chair, approximately one page long in pdf format, containing the following elements: name of the candidate supervisor, name of the candidate mentor if different from the supervisor, a description of the technical and physics projects and goals, the names of the FNAL scientists involved in the projects, estimated time allocations and timelines for each project, proposed physical location of the RA (FNAL, CERN). The plan should cover the first couple of years of work, including some detail on how the RA will transition from technical to physics projects or vice-versa. The RAMC chair will share the plan with the rest of the committee, which will either endorse the plan and recommend approval by the CMS Center Head or, otherwise, share its comments with the CMS Center Head. With the agreement of the CMS Center Head, the RAMC committee will provide feedback on the plan to the postdoc and initiate an iterative process.

The RAMC will also advise the CMS Center Head on RA appointment extensions and RA stays at CERN. For extensions and CERN stays the supervisor and the mentor will jointly submit an email request to the CMS Center Head describing in a couple of paragraphs the plan for the extension and the reason for the CERN location. The committee will proceed in the same way as for the plans when forwarded the information by the CMS Center Head.

The supervisor and the mentor will meet frequently with the RA to discuss progress and issues. They will assist the RA in preparing an updated copy of his resume in October every year (after the performance evaluation) and share it with the RAMC chair.

The supervisor and the mentor will jointly report once a year to the RAMC by making a presentation (slides) during a regular RAMC meeting in the mid-term season (January-May). The report will contain details on progress in each project, including leadership roles in analysis or within the CMS management structure, high profile internal talks presented by the RA, conferences attended, seminars given, awards received, publications, and other important achievements. The report will also contain a plan for the coming year.

The RA will attend the “RA Pizza Meetings” organized by the CMS Center management to provide opportunities (once a year) for the RA to present a summary of his work and experience to his peers and Fermilab scientists. RAs will make a presentation to pizza meetings at least once a year. The supervisor and the mentor will assist the RA in the preparation of the talk, attend the meeting, and do their best to attend the other meetings when their RA is not presenting. The RAMC members are also encouraged to attend these meetings.

The supervisor and the mentor will advise on the conference talks the RA should be nominated, make sure there is a good pool of senior people supporting the nomination, and arrange for a practice talk at least a week before the conference to be attended by people with relevant experience as well as at least a member of the RAMC. The supervisor will inform the RAMC chair when a postdoc is selected for a conference presentation.

The supervisor and the mentor will also advise the RA on opportunities to take leadership positions within CMS, and arrange for nominations and support. The supervisor will inform the RAMC chair at the start of the nomination process for the committee to advice.

The supervisor and the mentor will jointly assist the RA in the preparation of the “job package” (cover letter, CV, research plan, etc) at the beginning of the job-hunting season in early September. The supervisor will share the job package draft material with the RAMC chair, who will appoint at least one member of the committee to read it. The supervisor and the mentor will work together to arrange for practice talks associated with job interviews, seminars, and colloquia at least a week before the event and inform the RAMC chair in advance. They will invite physicists with relevant experience to attend the practice talks.

The supervisor and the mentor will also advise the RA on potential applications to awards within CMS, Fermilab, or the HEP community. The supervisor will send the

RAMC chair the drafts of the award nomination material for the committee to advice.